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Michael D. Ellis

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EXAMINER

SALCE, JASON P

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2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/996,052 | Applicant(s) ELLIS ET AL. | |
| | Examiner Jason P. Salce | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-31,46-48,50-76,91-93 and 95-150 is/are pending in the application.
- 4a) Of the above claim(s) 151 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-31,46-48,50-76,91-93 and 95-150 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/2007 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-31, 46-48, 50-76, 91-93, 95-150 have been considered but are moot in view of the new ground(s) of rejection.

Election/Restrictions

Newly submitted claim 151 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claim 151 corresponds to an invention that selects a plurality of research focuses related to interactive television services and differentiating information contained in the generated data record based on the at least one research focus to which it relates. The previously presented claims have never recited selecting a plurality of research focuses, only one research focus where a plurality of research criteria is evaluated and processed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 151 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-31, 46-48, 50-76, 91-93, 95-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (U.S. Patent No. 6,177,931) in view of Hendricks et al. (U.S. Patent No. 5,559,549).

Claims 1-3, 5-9, 11-15, 17-25, 27-30, 46-48, 50-54, 56-60, 62-70, 72-75, 91-93, 95-99, 101-105, 107-115 and 116-120 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Alexander et al. (U.S. Patent No. 6,177,931).

Referring to claim 1, Alexander discloses implementing an interactive television application on a plurality of user equipment in different households to provide interactive services to a plurality of users (**see Figure 1 for implementing an EPG on a television receiver to provide interactive services (see Column 3, Lines 1-55 and further note Column 29, Lines 31-34 for a headend collecting profile data from a**

plurality of client devices and Column 32, Lines 39-45 for transmitting customized data to a plurality of users base)).

Alexander also discloses selectively enabling a subset of research criteria from a plurality of research criteria to support a research focus (**see Column 28, Lines 22-29 for creating a subset of research criteria based on an individual viewer or subset of viewers (research criteria) and further note Column 29, Lines 24-27 for also enabling collection of profile data for a specific period of time (research focus)).**

Alexander also discloses generating an individual data record for each one of a series of discrete acts that 1) occurred (**see Column 28, Line 11 through Column 29, Line 11**) on the interactive television application of the enabled plurality of user equipment (**see Column 29, Lines 56-60**) and, 2) meets the enabled subset of research criteria (**see again Column 28, Lines 22-29 for collecting profile information based on which viewer of subset of viewers (family) are interacting with the EPG).**

Alexander also discloses screening the data records based on the enabled subset of research criteria (**see Column 29, Lines 36-37 for performing statistical analysis on the collected profile information).**

Alexander also discloses processing the screened data records to evaluate the research focus (**see Column 29, Line 29 through Column 30, Line 44).**

Alexander fails to disclose selectively enabling a sub-plurality of user equipment for data collection in response to a command from a headend to the sub-plurality of user equipment.

Hendricks discloses selectively enabling a sub-plurality of user equipment for data collection in response to a command from a headend to the sub-plurality of user equipment (**see Column 16, Line 41 through Column 17, Line 10 and Column 23, Line 4 through Column 24, Line 6 for enabling a sub-plurality of user equipment (by use of the address field) for data collection of profile data, wherein the profile data is transmitted to the headend after the user equipment receives a polling command from the headend**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the data collection routine, as taught by Alexander, to include the addressable polling technique, as taught by Hendricks, for the purpose of only collecting profile information from a smaller amount of addressable set-top boxes in order to conserve upstream bandwidth and processing resources provided by the headend.

Referring to claim 2, Alexander discloses implementing a data collection application to generate the data records (see Column 28, Lines 30-34).

Referring to claim 3, Alexander discloses providing the user equipment to include a set-top box (see Column 3, Lines 24-25).

Referring to claim 5, Alexander discloses sending the individual data records to a central facility (see Column 29, Lines 14-34).

Referring to claim 6, Alexander discloses screening the generated data records to filter out some of the records (see Column 30, Lines 51-53).

Referring to claim 7, Alexander discloses processing the individual data records to capture information from the data records (see Column 29, Lines 56-60).

Referring to claim 8, Alexander discloses generating the data records to include one set of data records for identifying parameters for a user profile (see Column 28, Lines 30-52).

Alexander also discloses generating the data records to also include another set of data records (see Column 28, Lines 30-52 for capturing multiple types of interactions, therefore teaching another set of data records).

Referring to claim 9, Alexander discloses generating data records to include one set of data records for determining where to place interactive advertisements (see Column 32, Lines 22-34).

Alexander also discloses generating the data records to also include another set of data records (see Column 28, Lines 30-52 for capturing multiple types of interactions, therefore teaching another set of data records).

Referring to claim 10, Alexander and Hendricks teach all of the limitations of claim 1, but fail to disclose that the data records are in a format that is compatible with conventional database applications.

The examiner takes Official Notice to the fact that conventional databases such as Oracle or SQL can be used to process and manage EPG and viewer profile data.

At the time the invention made, it would have been obvious to a person of ordinary skill in the art, to modify the viewer profile data collection system, as taught by Alexander and Hendricks, to include the conventional database software, for the purpose of allowing user to process data using powerful database tools that allow more details method of managing data, thereby providing more organized and efficient means for processing the viewer profile data.

Referring to claim 11, Alexander discloses that the data records are generated for discrete acts that mark changes in an application flow of the interactive television application (see Column 28, Lines 30-52 and Column 30, Lines 47-51).

Referring to claim 12, Alexander discloses that the interactive television application is an interactive television program guide application (see Figure 1).

Referring to claim 13, Alexander discloses implementing a storage device that stores the data records (see Column 28, Lines 30-52 for recording/storing EPG records).

Alexander also discloses providing a conversion device for converting signals carrying the data records between the user equipment and the storage device (see Column 29, Lines 14-34 for transmitting the records from the client device to the head end). The examiner notes that in order to transmit any type of data from a set-top box to a cable head end through a television or phone network, the signal must be properly modulated to the correct frequency in order to be transmitted on the correct upstream path, therefore any transmission from a client device to a head end, over a network, requires a conversion device for converting/modulating signals to an upstream return path.

Referring to claim 14, Alexander discloses generating a data field in the data records for a time at which a particular act occurred (see Column 28, Lines 30-59).

Referring to claim 15, Alexander discloses generating a user input data record when the user presses a key on a user input device (see Column 28, Lines 30-59).

Referring to claim 16, Alexander and Hendricks disclose all of the limitations in claim 1, as well as recording every user interaction (see Column 29, Lines 39-41), but fail to teach generating a turbo key data record when the user holds a key on the a user input device to repeat the key entry.

The examiner takes Official Notice to the fact of a turbo key function.

At the time the invention made, it would have been obvious to a person of ordinary skill in the art, to modify the remote control functionality, as taught by Alexander and Hendricks, to include turbo key functionality, for the purpose of providing more detailed interaction information to the headend in order to determine which television program channels (favorite channel list) to provide to a viewer.

Referring to claim 17, Alexander discloses generating a state change data record when the interactive television application changes states (see Column 28, Lines 30-59).

Referring to claim 18, Alexander discloses generating a channel change data record when the user changes channels (see Column 28, Lines 30-59).

Referring to claim 19, Alexander discloses generating an ad display record when an advertisement is displayed by the interactive television application (see Column 28, Lines 30-59).

Referring to claim 20, Alexander discloses generating an information display data record when an information display screen is displayed (see Column 28, Lines 30-59).

Referring to claim 21, Alexander discloses generating a highlight data record when a highlight window is positioned on an item in a display screen (see Column 28, Lines 30-59).

Referring to claim 22, Alexander discloses a parental lock data record when a parental control feature is selected (see Column 29, Lines 39-41 and Column 17, Lines 13-36).

Referring to claim 23, Alexander discloses a favorite channel data record when a favorite channel option is selected (see Column 28, Lines 30-59).

Referring to claim 24, Alexander discloses a setup option data record when a user changes setup options (see the rejection of claim 22).

Referring to claim 25, Alexander discloses a reset database record when a database of the interactive television application is reset (see Column 29, Lines 22-30 for resetting the database everytime the profile information is transmitted to the headend and therefore reset).

Referring to claim 26, Alexander and Hendricks disclose all of the limitations of claim 1, but fail to disclose an identification data record to identify a software version of the interactive television application.

The examiner takes Official Notice to the fact of notifying a headend which version of EPG software the client device is running.

At the time the invention made, it would have been obvious to a person of ordinary skill in the art, to modify the viewer profile data collection system, as taught by Alexander and Hendricks, to include the software version of the client device, for the purpose of sending back the proper version of preferred viewer information to the client device in order for a client device to be able to properly process the viewer information on the specific manufacturer version of the client device.

Referring to claim 27, Alexander discloses a current status data record to identify a current status of the interactive television application (see Column 28, Lines 30-59).

Referring to claim 28, Alexander discloses generating the data records for automatic and manual acts that occurred to interface the user and the interactive television application (see Column 28, Lines 30-59).

Referring to claim 29, Alexander discloses aggregating certain individual data records to form other data records (see Column 29, Lines 22-30).

Referring to claim 30, Alexander discloses screening the generated data records to reduce the amount of data (see Column 29, Lines 22-30).

Referring to claim 31, Alexander and Hendricks disclose all of the limitations in claim 1, but fail to teach screening the generated data records according to their position in memory to filter out some of the records.

The examiner takes Official Notice to the fact of performing garbage collection on old data records stored in a database (in a television profiling system).

At the time the invention made, it would have been obvious to a person of ordinary skill in the art, to modify the viewer profile data collection system, as taught by Alexander and Hendricks, to include the data record memory filtering functionality, for the purpose of assuring that old data records that are no longer useful to the viewer are purged from memory so that a memory overflow does not occur.

Referring to claims, 46-48, 50-54, 56-60, 62-70 and 72-75, see the rejection of claims 1-3, 5-9, 11-15, 17-25 and 27-30, respectively.

Referring to claims 55, 61, 71 and 76, see the rejection of claims 10, 16, 26 and 31, respectively.

Referring to claims 91-93, 95-99, 101-105, 107-115 and 116-120, see the rejection of claims 1-3, 5-9, 11-15, 17-25 and 27-30, respectively.

Referring to claims 100, 106, 116, 121, see the rejection of claims 10, 16, 26 and 31, respectively.

Referring to claim 136, Alexander further discloses that the research focus comprises research on the usability of the interactive system (**see Column 29, Lines 14-30 for collecting information about how many interactions the user has initiated (the usability of the interactive system))**).

Referring to claim 137, Alexander and Hendricks disclose all of the limitations in claim 1, but fail to teach that the research focus comprises research on placement and pricing of advertisements.

The examiner takes Official Notice to the fact that data can be collected on the placement and pricing of advertisements.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the viewer profile data collection system, as taught by Alexander and Hendricks, to include the collection of the placement of pricing of advertisements, for the purpose of providing more precise targeted advertisements from a headend to a plurality of client devices.

Referring to claim 138, Alexander further discloses that the research focus comprises research on the characteristics of a particular user demographic (**see Column 28, Lines 22-29 for collecting profile data based on a family demographic**).

Referring to claim 139, Alexander further discloses that the research focus comprises television channel viewing statistics (**see Column 29, Lines 14-30 for collecting information about how many interactions the user has initiated (viewing statistics)**).

Referring to claim 140, Alexander further discloses that the data records comprise a rate of repetition of discrete events between the user and interactive television system (**see Column 30, Lines 7-16**) over a particular period of time (**see Column 29, Lines 22-30**).

Referring to claims 141-145, see the rejection of claims 136-140, respectively.

Referring to claims 146-150, see the rejection of claims 136-140, respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Salce
Primary Examiner
Art Unit 2623

March 6, 2008

/Jason P Salce/
Primary Examiner, Art Unit 2623